

**IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF VIRGINIA
ALEXANDRIA DIVISION**

UNITED STATES, <i>et al.</i> ,)	
)	
Plaintiffs,)	
v.)	No. 1:23-cv-00108-LMB-JFA
)	
GOOGLE LLC,)	
)	
Defendant.)	

PLAINTIFFS’ RESPONSE TO GOOGLE’S FINAL REMEDY PROPOSAL

Plaintiffs are the only parties in this case proposing “measures effective to restore competition” in the two ad tech markets that Google has illegally monopolized for more than a decade. *United States v. E.I. du Pont de Nemours & Co.*, 366 U.S. 316, 326 (1961). Google has inflicted significant harm on those markets and the customers who depend on ad tech products to keep the open web running. *See, e.g.*, Op. at 114–15. Therefore, a remedy in this case must be strong and enduring enough to “cure” those “ill effects,” protect against their recurrence, *United States v. U.S. Gypsum Co.*, 340 U.S. 76, 88 (1950), “deny to [Google] the fruits of its statutory violation,” and “terminate [its] illegal monopol[ies],” *United States v. United Shoe Mach. Corp.*, 391 U.S. 244, 250 (1968). Google’s proposed remedies would achieve none of these objectives and would therefore result in Google “preserv[ing] . . . intact” the ad tech “empire[]” that it “unlawfully built.” *Schine Chain Theatres v. United States*, 334 U.S. 110, 128 (1948).

Google’s proposed remedies would fail to restore competition because they ignore the market realities that allowed Google to “destroy[] all competition” in the first place. Op. at 98 (cleaned up). Namely, Google’s proposed remedies fail fundamentally to grapple with (1) the sources of Google’s ill-gotten monopoly power, (2) the instruments it wielded to exercise that power, and (3) the economic incentives that drove Google to implement its “decade-long

campaign of exclusionary conduct.” *Id.* at 111. Google’s proposal would allow Google to preserve all three, and therefore it is unsurprising that no industry participant is slated to testify in support of Google’s proposals. Google bases its remedy proposals on a revisionist history in which Google established and kept its monopoly power lawfully, but the Court has already rejected that narrative. By starting from a false premise about the past, Google’s proposals leave no room for a future in which competition is restored. Google’s submissions plainly show that Google has not accepted the gravity of its wrongdoing, and it refuses to surrender the fruits of its illegality because it does not accept this Court’s liability findings. History teaches us that what’s past is prologue. Given its past conduct—and its refusal to fully accept responsibility for that conduct—Google deserves no benefit of the doubt when it comes to predicting its future conduct. The Court “is not obliged to assume, contrary to common experience, that [Google] will relinquish the fruits of his violation more completely than the [C]ourt requires [it] to do.” *Int’l Salt Co. v. United States*, 332 U.S. 392, 400 (1947).

By contrast, Plaintiffs’ remedy proposals strike at the root causes of Google’s misconduct. Unlike Google’s proposed remedies, Plaintiffs’ proposed remedies do not rest on the assumption that Google will suddenly alter its decade-old patterns of behavior. Consistent with Supreme Court precedent, Plaintiffs’ proposed remedies go beyond merely ordering Google to cease a specific set of illegal practices; instead, Plaintiffs seek to eliminate the abilities and incentives that made that illegal conduct possible. To do so, Plaintiffs “start from the premise,” ratified by the Supreme Court, “that an injunction against future violations is not adequate to protect the public interest,” and thus “divestiture . . . is an essential feature” of relief. *Schine Chain*, 334 U.S. at 128. Most importantly, Plaintiffs’ proposed structural remedies—which the evidence at trial will show are technically feasible, welfare-enhancing, and supported by a

diverse range of market participants other than Google—are essential because they “reach the root of the evil,” which is Google’s common control of DFP, AdX, and AdWords. *United States v. Grinnell Corp.*, 384 U.S. 563, 578 (1966). By structurally removing from Google’s control AdX and DFP’s Final Auction Logic, which are the two “chief weapons” of Google’s unlawful campaign, Plaintiffs’ proposed remedies “assur[e] that” Google will have “no . . . opportunity” to repeat that campaign. *United States v. Crescent Amusement Co.*, 323 U.S. 173, 190 (1944). The evidence will show that each of these structural remedies serves distinct purposes and addresses distinct harms, making them both independently necessary to restore competition. Plaintiffs also propose complementary behavioral remedies, data-sharing and interoperability remedies, robust monitoring, and disgorgement of ill-gotten Google profits that can be used to foster competition instead of rewarding Google’s illegality. *See* ECF No. 1663-1 (“Pls.’ PFJ”).

Despite denying structural relief based on facts that have no pertinence here, Judge Mehta’s ruling in *United States v. Google LLC* (“*Google Search*”), 2025 WL 2523010 (D.D.C. Sept. 2, 2025), embraced the key tenets of the legal framework that requires structural relief under the facts of this case. *See, e.g., id.* at *55 (citing *Int’l Boxing Club of N.Y., Inc. v. United States*, 358 U.S. 242 (1959), *United States v. Paramount Pictures, Inc.*, 334 U.S. 131 (1948), and *United States v. Bausch & Lomb Optical Co.*, 321 U.S. 707 (1944)). Judge Mehta reached a different result because he was presented with fundamentally different facts. There, the court found that the divestiture of Chrome was, factually, a “poor fit” because, among other things, Chrome was not a monopoly and not even part of the illegal conduct, the *Google Search* plaintiffs had not shown that “behavioral remedies will be ineffective without” such a divestiture, and Chrome was only “a single channel of distribution” in the relevant market. *Id.* at *55–56. Here, by contrast, the evidence will show that behavioral remedies would be insufficient to

restore competition, and this Court’s factual findings about the *establishment* of AdX and DFP monopolies through illegal conduct and the *use* of AdX and DFP in violating the law go well beyond the findings in *Google Search* and amply justify Plaintiffs’ proposed remedies under the legal standards accepted by Judge Mehta.¹

Publisher ad servers and ad exchanges play a vital role in delivering content to “consumers of information on the open web.” Op. at 115. Although Google appears to have already given up on the open web, *see* ECF No. 1674-1 (“Google Br.”) at 3–4 (predicting “the downfall of open-web display advertising”), it is not too late to repair these markets that Google broke with its illegal conduct. But competition can only be restored by striking at the root causes of the problem, not by sticking one’s head in the sand, as Google’s remedy proposal does. Only a clear-eyed grasp of the problem and its causes—Google’s monopolies and the abilities and incentives that facilitated their abuse—will, as the Court must, restore competition.

BACKGROUND

I. Google Acquired and Maintained Its Ad Tech Monopolies by Illegally Exploiting Its Common Control of DFP, AdX, and AdWords

Shortly after Google purchased AdX and DFP in 2008, it began exploiting its common control of those assets to “acquire and maintain monopoly power” in both relevant markets. *See* Op. at 1, 28–29, 114. Google established its monopoly power by connecting its buy-side to its sell-side in a way that “compelled publishers to use AdX and DFP.” *Id.* at 28–29 (cleaned up). By making AdWords demand exclusive to AdX and then restricting AdX real-time bids to DFP, Google made AdX “the glue that sealed DFP inventory to AdWords demand.” *Id.* at 28 (cleaned

¹ Rather than support Google’s legal framing, the court in *Google Search* rejected several of the same strained legal arguments Google advances here. *See, e.g.*, 2025 WL 2523010 at *30 (hardship); *id.* at *37 (causation); *id.* at *49–50 (including in remedy products not “part of the relevant markets”).

up). This coerced publishers to use DFP, *see id.* at 92–95, 97–98, and “ma[de] it more difficult for customers on both sides of the ad exchange market to switch to rival exchanges,” *id.* at 80. As the Court found, this conduct, which has been ongoing for over a decade, “enabled [Google] to establish and protect its monopoly power” in both relevant markets. *Id.* at 114; *accord id.* at 1.

Google then used its “dominant grip” on publishers, *see id.* at 46, “to introduce a series of anticompetitive policies, practices, and technology changes to its sell-side ad tech tools that were not in its publisher customers’ best interests,” and which “further entrench[ed] Google as the dominant company in open-web display advertising,” *id.* at 98. Because Google controlled the final auction logic in DFP, it was able to impose a morphing series of anticompetitive practices—First Look, Last Look, Last Look boosted by Sell-Side Dynamic Revenue Share, and UPR, *see id.* at 29–31, 34–39—the common thread of which was Google’s manipulation of how it ran DFP’s final auction to insulate AdX from competition. *See id.* at 98–101.

It is no accident that this “decade-long campaign of exclusionary conduct” by Google has revolved around Google’s exploitation of its common control of DFP, AdX, and AdWords. *Id.* at 111. “As Google employees recognized, the value of Google’s ad tech stack is less in each individual product, than in the connections across all of them.” *Id.* at 97 (cleaned up). Thus, Google has never deviated from its illicit plan to deepen and leverage those connections to benefit itself at the expense of the competitive process and its customers. *See, e.g., id.* at 94 (“Google took advantage of its owning the platform, the exchange, and a huge network of advertising demand” (cleaned up)). As a result, parts of Google’s illegal campaign were “mutually reinforcing,” *id.* at 81, further amplifying their exclusionary effect. *Id.* at 99 (illegal conduct “exacerbated” and “reinforced” the anticompetitive effect of other illegal conduct).

II. Google’s Illegal Conduct Has Caused Significant Harm to the Competitive Process, Google’s Publisher and Advertiser Customers, and Users of the Open Web

Through its protean exclusionary campaign, Google has caused significant, long-lasting harms to the competitive process and to the open-web publishers and advertisers who are supposed to benefit from that competition. *See, e.g., id.* at 115. As the Court found, these harms extend to the billions of Internet users who rely on an ad-supported open web ecosystem to obtain “free access to an extraordinary quantity of content and services.” *Id.* at 7; *see also id.* at 115 (Google’s illegal conduct “substantially harmed . . . consumers of information on the open web”). It is these “ill effects of the illegal conduct” that a remedy must “cure.” *Gypsum*, 340 U.S. at 88; *see also Nat’l Soc. of Prof’l Eng’rs v. United States*, 435 U.S. 679, 698 (1978) (remedy must “eliminat[e] the consequences of the illegal conduct”).

The harms Google has caused are myriad but generally fall into the following categories:

Impeding Rivals’ Ability to Compete. Google’s unlawful campaign impeded the ability of rival firms to compete in various ways for more than a decade. *See, e.g., Op.* at 31 (“imped[ed]” rivals’ “ability to enter the market, grow, and compete”); *id.* at 35 (“significantly disadvantaged other competitors” (cleaned up)); *id.* at 101 (“limit[ed] [rivals’] ability to compete”); *id.* at 86 (“thwarted [rivals’] ability to compete”); *id.* at 98 (“ma[de] it difficult for rival publisher ad servers to compete on the merits”); *id.* at 109 (“dampened ad exchange price competition”); *id.* at 114 (“depriv[ed] rivals of the ability to compete”).

Depriving Rivals of Scale and Data. One specific way Google impeded rivals’ ability to compete was by depriving them of scale and the “data about advertisers, publishers, and Internet users” that comes with scale. *Id.* at 40; *see id.* at 86 (“diminished rivals’ scale”); *id.* at 101 (“reducing its rivals’ scale”); *id.* at 103 (“decreased rivals’ scale”); *id.* at 108–09 (same); *see also*

id. at 98 (“significantly reducing rivals’ market share”); *id.* at 31 (First Look “gave Google a data advantage that helped the AdX team train its auction bidding models more effectively”).

Scale and the data it begets are “a crucial factor for ad tech companies’ ability to compete” because they allow firms to “test products more quickly and make higher-quality matches between advertisers and publishers.” *Id.* at 40. Ad exchanges specifically benefit from scale due to “network effects” and “from processing a high number of transactions.” *Id.* at 83–84. These harms from depriving rivals of scale and data tend to amplify and persist over time. *See, e.g.*, Trial Tr. at 18:11–19:9 (9/16 PM) (Weintraub) (describing “feedback loop between transaction volume and product quality”); *id.* at 146:5–16 (9/19 PM) (Lee) (network effects and scale effects are “durab[le]” and “persist[]”).

Impeding Entry and Forcing Exit. Google’s conduct impeded rivals’ ability to “enter the [ad exchange] market,” Op. at 31, and “caused some rivals to exit the publisher ad server market,” *id.* at 103; *see also id.* at 75 (caused “many once-large rival ad servers” to exit); *id.* (“Even Meta shut down its project to build a publisher ad server due to the significant barriers to gaining scale in a market dominated by Google.”). These harms fell hardest on the publisher ad server market, where “almost every other publisher ad server either went out of business or was sold for scrap because Google has destroyed all competition.” *Id.* at 98 (cleaned up). And such harms are both immediate and long-lasting because consumers forever “lose the benefits of any entry, expansion, competition, or innovation that independent rivals might have injected.” *Viamedia, Inc. v. Comcast Corp.*, 951 F.3d 429, 483 (7th Cir. 2020).

Restricting Customer Choice. Google’s conduct restricted customers’ ability to freely choose among available options in the relevant markets by making it harder for publishers and advertisers to work with Google’s rivals and depriving customers of a choice they used to

exercise to promote competition. *See* Op. at 78 (“left both publishers and advertisers with very little choice but to keep using [AdX]”); *id.* at 80 (“ma[d]e it more difficult . . . to switch to rival exchanges”); *id.* at 99 (“made it harder for customers to do business with rivals”); *id.* at 101 (UPR “deprive[d] [Google’s] publisher customers of a choice they had . . . exercised to promote competition”). These are classic harms to competition because “the market can determine whether one product is superior to another only so long as the free choice of consumers is preserved.” *New York ex rel. Schneiderman v. Actavis PLC*, 787 F.3d 638, 654–55 (2d Cir. 2015); *see also Duke Energy Carolinas, LLC v. NTE Carolinas II, LLC*, 111 F.4th 337, 354 (4th Cir. 2024) (recognizing “reduced consumer choice” as harm to competition).

Charging Supracompetitive Prices. “AdX charged supracompetitive prices” to its publisher and advertiser customers without losing market share. Op. at 80; *id.* at 78 (despite supracompetitive prices, “AdX’s customers have not left and AdX has not lost market share.”); *see also id.* at 76–77 (“AdX[] charg[ed] a durable 20% take rate for well over a decade,” which was a “supracompetitive price[]”); *id.* at 83 (similar). Supracompetitive pricing is a core antitrust harm. *See, e.g., Carefirst of Md., Inc. v. Johnson & Johnson*, 745 F. Supp. 3d 288, 310 (E.D. Va. 2024). The undisputed evidence at trial established that this overcharge fell most acutely on Google’s publisher customers because they have “fewer alternatives,” but that a significant portion (“between 20 and 30 percent”) fell on advertisers as well. Trial Tr. at 36:14–37:3 (9/18 PM) (Simcoe); *see also id.* at 99:12–100:18 (9/25 AM) (Chevalier) (“of course” advertisers bear some of the overcharge, which is “shar[ed]” with publishers).²

² Google has criticized the Court’s liability ruling in parallel litigations, arguing that the Court erred by not addressing harm to advertisers from Google’s conduct that affected the two-sided ad exchange market. *See* Defs.’ Mem. Law Opp. Pls.’ Mot. Collateral Estoppel & Partial Summ. J., ECF No. 1079 at 9–10, *In re Google Dig. Advert. Antitrust Litig.*, 1:21-md-3010 (S.D.N.Y. July

ARGUMENT

I. Structural Remedies Are Necessary and Appropriate in This Case

Plaintiffs have previously explained why structural remedies, such as divestiture, are both necessary and appropriate in this case. *See* ECF No. 1435 at 2–7; ECF No. 1482 at 5–11. This section supplements and builds upon those prior submissions, with the benefit of discovery and disclosure of expert opinions, to make three points. *First*, structural relief is needed to eliminate Google’s incentives and abilities to harm competition. *Second*, Supreme Court precedent firmly supports structural remedies here, contrary to Google’s mischaracterizations. *Third*, the Court has discretion to order a divestiture without specifying every detail or eventuality ahead of time.

A. Effective Relief in This Case Requires Neutralizing Google’s Ability and Incentive to Harm Competition in the Relevant Markets

The record shows that Google is a recidivist monopolist that, following its incentives, has shown a “proclivity to unlawful conduct.” *Paramount Pictures*, 334 U.S. at 147; *see also id.* at 174 (“[T]he fact that the power created by size was utilized in the past to crush or prevent competition is potent evidence that the requisite purpose or intent attends the presence of monopoly power.”). Specifically, Google has demonstrated a “proclivity in the past to use” its joint ownership of DFP, AdX, and AdWords “for an unlawful end.” *Crescent Amusement*, 323 U.S. at 190. Repeatedly over more than a decade, when Google has had the chance to compete on the merits in the relevant markets, it has chosen instead to use its control of DFP, AdX, and AdWords—and the connections it has forged among them—to break the law. And just as the

18, 2025); Google LLC’s Supp. Br. Addressing Virginia Decision, ECF No. 846 at 9–10, *Texas v. Google LLC*, No. 4:20-cv-957 (E.D. Tex. May 12, 2025). As discussed, that argument mischaracterizes the trial record and the thrust of the Court’s ruling that Google’s conduct harmed both publishers and advertisers. *See supra* p. 8. Because Google relies on this mischaracterization in this remedies phase, the Court should reiterate that advertiser harm was among the bases for its liability ruling.

fabled scorpion cannot help but sting the frog, even at its own peril, so long as Google retains its powerful ability and deep-seated economic incentive to continue to harm competition in the relevant markets, it will continue to find ways to act in accordance with them.

Therefore, for a remedy to “fit the exigencies of [this] particular case,” *Ford Motor Co. v. United States*, 405 U.S. 562, 575 (1972) (cleaned up), it must grapple with Google’s underlying abilities and incentives to harm competition, not merely with the specific illegal conduct that those attributes enabled in the past. To be sure, that is no simple task. Google’s resources are vast, its powerful positions across the ad tech stack are unparalleled, and its ability to evolve its illegal behavior—often in subtle ways that are hard to detect—is well demonstrated. Even so, the proclivities of recalcitrant monopolists like Google are not a new challenge for the antitrust laws. Decades of experience have taught that “strong measures are required to restrain a tendency to recidivism” because of “the possibility of the return to improper conduct on the part of the monopolist.” *United States v. Aluminum Co. of Am.*, 91 F. Supp. 333, 343 (S.D.N.Y. 1950).

Here, Google’s well-established proclivities to undermine fair competition require a remedy that structurally eliminates Google’s ability and incentive to do so. No other form of remedy will “cure the ill effects of the illegal conduct, and assure the public freedom from its continuance.” *Gypsum*, 340 U.S. at 88. The short-lived, narrow behavioral remedies that Google proposes “would give tremendous impetus to the program of experimentation with disobedience of the law” and would “prevent accountability for persistent contumacy.” *McComb v. Jacksonville Paper Co.*, 336 U.S. 187, 192 (1949); *see also infra* pp. 34–39.

This case differs fundamentally from the remedy proceedings in *Google Search* for a variety of reasons. There, the court agreed with many of the legal principles regarding divestiture remedies that Plaintiffs have cited here. *See* 2025 WL 2523010, at *30, 37, 49–50, 55. It reached

a different result regarding structural remedies because the facts were different in at least five ways. *First*, *Google Search* is a monopoly maintenance case, unlike here where Google also *established* its monopoly illegally. *See United States v. Google LLC* (“*Google Search Liability*”), 747 F. Supp. 3d 1, 32 (D.D.C. 2024). *Second*, the court found that a “complete divestiture of Chrome,” Google’s web browser, was “a poor fit” because, among other things, the plaintiffs had “not shown that [plaintiffs’] behavioral remedies will be ineffective” without the divestiture, *id.* at *55, whereas here structural remedies are a keystone of effective relief. *Third*, the court found that Google did not use Chrome to engage in any anticompetitive conduct, whereas here AdX and DFP were key instruments of Google’s illegal campaign. *See id.*; *see also id.* at *54 (“[T]he Chrome default is not alleged to be exclusionary conduct . . .”). *Fourth*, while AdX and DFP are vital tools for open-web publishers, Chrome was merely “a single channel of distribution” for general search engines and “not even one that was unlawfully foreclosed.” *Id.* at *56. *Fifth*, unlike AdX and DFP, Google “built [Chrome] from the ground up” rather than acquiring it. *Id.*; *see also infra* p. 25 (further distinguishing *Google Search* regarding technical feasibility); *id.* at pp. 29–30 (same for causation).

Part of the reason why structural remedies are necessary here is that Google operates its ad tech tools in a black box that even sophisticated industry participants cannot understand. *See, e.g.*, Trial Tr. at 92:4-17 (9/13 PM) (Creput (Equativ)) (Google’s tools are “a little bit like a black box”); *id.* at 132:8-16 (9/13 PM) (Boland (Meta)) (“[W]e didn’t have a complete understanding of other things that Google might be doing behind the scenes that were not public, not transparent to us or to others.”); *id.* at 23:14-25:11 (9/10 AM) (Layser (NewsCorp)) (describing Google’s refusals to provide “[f]ull transparency” to its publisher customers through “log-level data”). This secrecy, combined with Google’s proclivities to both harm competition and hide

evidence of that harm, *see* Op. at 112–14 (discussing spoliation), creates a significant risk that Google would evade purely behavioral remedies, leaving market participants and even the most diligent and capable monitor at a significant disadvantage in detecting and enforcing violations.

Moreover, though Google has accused Plaintiffs of “attempt[ing] to regulate competition,” ECF No. 1434 at 27, it is Google’s proposal that would make the Court a “central planner[],” *id.* at 28. Under Google’s narrow proposal, each time Google comes up with a new way to use the same assets and incentives to harm competition in these same markets in the future, it would call into question whether the judgment needs to be modified to adapt to changed circumstances. *See, e.g., Thompson v. U.S. Dep’t of Hous. & Urban Dev.*, 404 F.3d 821, 825–26 (4th Cir. 2005). Such a regime would place the Court in the unenviable role of “day-to-day enforcer” of an ever-evolving set of facts that the final judgment (proposed by Google) made no effort to anticipate or guard against. *See NCAA v. Alston*, 594 U.S. 69, 106 (2021). By contrast, Plaintiffs’ proposal seeks to plan for and prevent problems before they arise, including especially by directly addressing Google’s abilities and incentives to harm competition, which are the most likely sources of future problems.

B. Supreme Court Precedent Supports Structural Remedies in This Case

Contrary to Google’s past contentions, it is well-established that ordering divestiture of lawfully acquired assets can be warranted when, as here, a monopolist has demonstrated a tendency to use those assets to harm competition. *See* ECF No. 1435 at 4–6 (discussing *Crescent Amusement*, *Paramount Pictures*, and *Schine Chain*); *Int’l Boxing*, 358 U.S. at 256–57, 259. Indeed, in such cases, “divestiture or dissolution is an essential feature of” the relief. *Schine Chain*, 334 U.S. at 128.

Implicitly conceding this point, Google falls back to its contention that the anticompetitive conduct must “stem from” some kind of “unlawful combination” (which Google

defines broadly)³ to warrant divestiture. Google Br. 2, 9. But that argument is wrong. The Supreme Court has made clear in multiple cases that the *use* of certain assets as tools to monopolize a market can warrant divestiture of those assets, including when the assets were lawfully acquired, when the assets are also used by the monopolist to compete in other markets, and when the monopolization conduct is something other than an “unlawful combination,” such as tying or other forms of vertical leveraging. *See also Google Search*, 2025 WL 2523010, at *55 (collecting cases). A review of those cases illuminates Google’s misapprehension of them.

1. Crescent Amusement (1944)

Crescent Amusement involved a group of affiliated film exhibitors (*i.e.*, operators of movie theaters) that did business in both “closed towns where they had no competition” and in other towns where they faced competition from independent firms. 323 U.S. at 176, 179–81. The defendants used their combined monopsony “buying power” in the non-competitive towns to “compel[]” film distributors to “give them monopoly rights to” films in the competitive towns. *Id.* at 178–81. This meant that if film distributors wanted their films shown in the non-competitive towns (where the defendants were their only option), they also had to agree to distribute their films through the defendants in otherwise competitive towns. That conduct had the effect of foreclosing the exhibitors’ rivals by “restricting [their] ability . . . to license films.” *Id.* at 181. Without the ability to license films to show in their theaters, rival exhibitors “frequently [went] out of business” or “s[old] out to the combination with an agreement not to

³ Google’s definition includes a “joint ownership scheme,” Google Br. 9, which is not materially different from the kind of common control of assets that exists here. For example, the Court in *Schine Chain* described the entity with monopoly power as a “combination . . . of affiliated corporations,” even though it was a single parent company with wholly owned subsidiaries. *See* 334 U.S. at 113, 127. That is why *Schine Chain* was partially overruled by *Copperweld Corp. v. Independence Tube Corp.*, 467 U.S. 752, 771 (1984) (holding parent corporation and wholly owned subsidiaries are not legally capable of conspiring with each other). None of these issues of corporate form are relevant here in deciding appropriate relief.

compete,” *i.e.*, exited the market. *Id.* Thus, the exhibitors implemented a “coercive policy” not unlike a tie. *Op.* at 92; *see also Copperweld*, 467 U.S. at 780 (Stevens, J., dissenting) (*Crescent Amusement* involved “unlawful conduct going beyond the acquisition of subsidiaries”).

The trial court ordered both structural and behavioral relief for this conduct, including a requirement that the exhibitors each “divest itself” of ownership interests in each other and an injunction against reacquiring those interests. *Crescent Amusement*, 323 U.S. at 188. The Supreme Court upheld this relief for the same reason the Court should order similar relief here: the exhibitors had shown a “proclivity in the past to use that affiliation for an unlawful end,” and because “[c]ommon control was one of the instruments” in “bringing about” the violation and “making [it] effective,” breaking up that common control was needed to “assur[e] that no such opportunity will be available in the future.” *Id.* 189–90. Specifically, effective relief was “not . . . restricted” to divestiture of ownership interests whose “acquisition was part of the fruits of the conspiracy,” because even lawfully acquired assets should be divested to remedy the violation and prevent its likely recurrence. *Id.* at 189. The Court’s core rationale was that, absent divestiture, the exhibitors would retain the incentive and ability to continue harming competition: “If that affiliation continues, there will be tempting opportunity for these exhibitors to continue to act in combination against the independents.” *Id.* at 189–90. In other words, the Court upheld divestiture of the “chief weapons” of the exhibitors’ “unlawful warfare,” regardless of whether those weapons’ initial acquisition was anticompetitive on its own. *Id.* at 188.

Google fails to grapple with the holding of *Crescent Amusement* and instead focuses on factual distinctions that the Court expressly said did not matter to its holding. *See Google Br.* 10, 22 n.15 (focusing on acquisitions of competing theatres and fact that defendants “combin[ed] with each other”). Neither the form of the “combination” nor the legality of the stock

acquisitions, standing alone, mattered, just as the legality of initially acquiring DoubleClick, “in isolation,” Op. at 87, does not determine whether AdX or DFP should be divested here.

2. *Schine Chain* (1948)

Schine Chain has many similarities to *Crescent Amusement*. It involved a film exhibitor (and its wholly owned subsidiaries) that used its “buying power” to “combine its closed and open towns” in purchasing film rights from distributors, *i.e.*, tying rights in competitive markets (“open towns”) to rights in non-competitive markets (“closed” towns), and thereby “exert[ed] pressure on the distributors” to “grant[] certain favors to Schine which were withheld from Schine’s competitors.” 334 U.S. at 114–15. In other words, the exhibitor’s “monopoly power” was “represented by combining the buying power of the open and closed towns—which enabled it to obtain that which its competitors could not obtain.” *Id.* at 117. The “closed towns” of the 1940s are today’s AdWords demand: a foundation for coercing customers and unlawfully establishing and maintaining a monopoly.

Like in *Crescent Amusement*, the trial court ordered both structural and behavioral relief, ordering the defendant to divest “more than 50 of its theatres.” *Id.* at 126–27. The Supreme Court remanded for a determination of which theatres were “obtained by practices which violate the antitrust acts,” so that it could ascertain which theatres were “the fruits of [the] conspiracy.” *Id.* at 129. Importantly, however, it held that “the matter does not end there” because the “existence of the power to monopolize, together with the purpose or intent to do so, constitutes an evil at which the Act is aimed.” *Id.* at 129–30; *see also id.* at 119 (“Even an otherwise lawful device may be used as a weapon . . . in an effort to monopolize a part of trade or commerce.”). In other words, when a firm has both the ability and incentive to monopolize a market and has used assets as “weapon[s]” to act on those abilities and incentives, those “weapons” may be divested to terminate the monopoly, even if they were not “unlawfully obtained.” *Id.* at 119, 130. Google

once again misses this on-point holding, focusing narrowly on the fact that “acquisitions” were one part of the unlawful conduct, Google Br. 10, even though the legality of acquiring assets was immaterial to whether assets should be divested. *See Schine Chain*, 334 U.S. at 129–30.

3. *International Boxing* (1959)

International Boxing involved a scheme by two men (Norris and Wirtz) to use their control over “key arenas and stadia” where championship boxing contests were held to monopolize the market for promotion of those contests. 358 U.S. at 248–49. In that case, there were three key groups of market participants: (1) boxers, (2) those who promoted boxers’ contests, and (3) venues that hosted the contests. Norris and Wirtz first offered then-heavyweight boxing champion Joe Louis a large payout to give up his title, and then Louis in turn offered “the four leading contenders” for the title that he would give up his title if they agreed to grant Norris and Wirtz “exclusive promotion rights.” *Id.* at 245–46. Norris and Wirtz then used the leverage of those promotion rights from top boxing contenders to consolidate control of key venues where championship boxing contests were held, including Madison Square Garden (“MSG”). *Id.* at 247–48. And because those venues were also the other primary promoters of championship boxing contests, consolidating control over the venues also gave Norris and Wirtz the power to secure “exclusive control of the promotion of boxing matches in three championship divisions” as well as control of “film and broadcasting” rights. *See id.* at 246–49.

“The choice given a contender thereafter was clear, i.e., to sign with [defendants] or not to fight.” *Id.* at 248; *see also United States v. Int’l Boxing Club of N.Y., Inc.* (“*Boxing I*”), 150 F. Supp. 397, 417–18 (S.D.N.Y. 1957) (contender granting exclusive promotion rights to defendants was “a condition precedent to such contender having the opportunity to win a title”). In other words, the two men created “mutually reinforcing” monopoly power across multiple markets (venues, promotion, and broadcasting). *See Op.* at 81. That power then allowed them to

“coerc[e]” boxers and other market participants to do business with them instead of their rivals. *See id.* at 92–95. In short, the defendants leveraged their control of the venues to sign contenders, and then leveraged their control of contenders to ensure championship bouts only occurred under their promotion. *See Int’l Boxing*, 358 U.S. at 248–49.

When relief was entered, “the Joe Louis agreements had elapsed; the exclusive-contract practice had been at least temporarily abandoned; the leases on [three key venues] had been given up and the [defendants] had no control over the new heavyweight champion.” *Id.* at 254. Nevertheless, the defendants “had exercised a strangle hold on the industry for a long period,” giving them “an odorous monopoly background which was known and still feared in the boxing world,” and they “still possessed the major tools, so well used previously, necessary to continue their control.” *Id.* Therefore, among other relief, the trial court ordered, and the Supreme Court upheld, a forced divestiture of defendants’ ownership interest in MSG, even though it “was not the fruit of illegal activity,” *see id.* at 255–58, and even though MSG hosted many kinds of events other than championship boxing contests, *see Boxing I*, 150 F. Supp. at 410 (MSG hosted “basketball and hockey” games, “meetings,” “rallies,” as well as “circus” and “rodeo” events).

The rationale for ordering divestiture was the same as in *Crescent Amusement* and *Schine Chain*: assets, “even if lawfully acquired[,] . . . may be utilized as part of the conspiracy to effect its ends.” *Int’l Boxing*, 358 U.S. at 256 (citing *Paramount Pictures*, 334 U.S. at 152). Thus, although the defendants had not acquired their interest in MSG illegally and MSG operated as a venue in several other adjacent product markets, their control of it was still “[t]he great evil” that had to be “sever[ed]” to restore competition.” *Id.* at 256, 258. Although the analogy between MSG and AdX/DFP are striking, and though the defendants’ coercive conduct in *International Boxing* is like Google’s here, Google nevertheless dismisses *International Boxing* as merely a

case about “an unlawful combination.” Google Br. 10. That misleading characterization obfuscates the many ways *International Boxing* supports ordering structural remedies here.

4. *United Shoe* (1968)

United Shoe involved a firm with monopoly power in multiple markets related to shoe manufacturing, including machines used to manufacture shoes. *See United States v. United Shoe Mach. Corp.* (“*United Shoe I*”), 110 F. Supp. 295, 298 (D. Mass. 1953). The trial court concluded that the defendant “used its leases to monopolize the shoe machinery market” because “the magnetic ties inherent in its leasing system” had “further[ed] [the defendant’s] dominance” and “unnecessarily exclude[d] actual and potential competition.” *Id.* at 344–45, 350. Originally, the trial court declined to order structural relief, out of concern for “caution and humility,” *id.* at 348, but invited the government to seek modification if the decree failed “in establishing workable competition,” *id.* at 354. Over ten years after the decree was entered, when “workable competition had not been established in that market,” the government once again sought structural relief, *i.e.*, to “reconstitute[]” the defendant into “two fully competing companies in the shoe machinery market.” *United Shoe*, 391 U.S. at 247. The trial court denied that request, ruling that the decree was “still working at its long-range task,” but the Supreme Court reversed, holding that “[i]f the decree has not, after 10 years, achieved its principal objects, . . . the time has come to prescribe other, and if necessary more definitive, means to achieve the result. A decade is enough.” *Id.* at 251 (cleaned up).

Google’s argument fails to account for *United Shoe*, where unlawful acquisitions were “not . . . one of the principal factors in enabling defendant to achieve and hold its share of the market,” *United Shoe I*, 110 F. Supp. at 312, yet the Supreme Court held the district court needed to consider structural remedies to restore competition. The same could be said of *Microsoft*, which involved no unlawful acquisitions or “combinations,” yet the D.C. Circuit directed the

trial court to determine “whether the use of the structural remedy of divestiture is appropriate.”

United States v. Microsoft Corp., 253 F.3d 34, 105 (D.C. Cir. 2001) (en banc).

C. Structural Remedies Are Appropriate Even if Some Details Remain to Be Worked Out During a Divestiture Process

Plaintiffs’ proposed final judgment sets forth a detailed and orderly process for divesting AdX, open-sourcing DFP’s Final Auction Logic, and (if necessary) divesting DFP Remainder (*i.e.*, DFP without the auction logic). *See* Pls.’ PFJ §§ VI–VIII. It defines the universe of assets to be transferred, sets clear milestones and deadlines, designates parties to resolve disputes along the way, and describes a suite of services available to the recipients of the assets (either a divestiture buyer or the Open-Source Auction Administrator) to facilitate a smooth and successful transition. *See, e.g., id.* §§ VI(A)–(D), VI(G)–(J), VI(L)–(N), VI(P). Because these structural remedies would be ordered by the Court, rather than jointly proposed by Google, there is not yet a specific acquirer or recipient of the transferred assets. However, Plaintiffs’ proposed final judgment similarly sets forth a process for vetting and selecting acquirers or recipients and resolving any unresolved details through the normal process of arm’s-length commercial discussion. *See, e.g., id.* §§ VI(C)–(E), VI(I), VI(L)–(N), VI(P).

Given this process, Google’s stated concern that the details of divesting AdX (and potentially DFP) are not all spelled out in advance and will instead be “punt[ed]” until “after [the Court] has already ordered divestiture” are unfounded. *See* Google Br. 13–15. For example, Google identifies details about the AdX divestiture that are not yet hammered out, such as exactly how a divestiture buyer would migrate AdX from Google’s infrastructure to the buyer’s or exactly which assets the divestiture buyer will need from Google to operate AdX as it exists

today.⁴ Plaintiffs propose a process to resolve these issues, and some details may depend on the identity, preferences, and needs of the divestiture buyer(s). But to be clear, Plaintiffs do not propose to defer any questions about the technical details of their proposed structural remedies to the Court. Instead, Plaintiffs propose that those remedies be primarily overseen by a divestiture trustee, appointed by the Court, who will have the technical qualifications and acumen to referee the divestiture process on the Court’s behalf. *See* Pls.’ PFJ § XIII(B).⁵

Also unfounded is Google’s insistence that any “hardship” it would purportedly bear to “embark[] on” a divestiture process is a relevant consideration at this stage. Google Br. 15.⁶ “On the contrary, those who violate the antitrust laws cannot ‘avoid an undoing of their unlawful project on the plea of hardship or inconvenience.’” *Google Search*, 2025 WL 2523010, at *30 (quoting *du Pont*, 366 U.S. at 326–27). At this stage, the “primary focus of inquiry” is what relief will be effective to restore competition, and “findings of possible harsh consequences” are “hardly of material assistance in reaching judgment on th[at] central issue.” *du Pont*, 366 U.S. at

⁴ Google also professes not to know “which functionalities” of Google’s technology are “‘AdX’ and which [are] ‘DFP’” for purposes of divestiture. Google Br. 13. However, those functionalities must be sufficiently clear for Google’s own proposed order to define both “AdX” and “DFP” with reference to their “functionality” in Google’s source code. ECF No. 1664-1 (“Google PFJ”) ¶¶ VI(C), VI(H).

⁵ In any event, both the Fourth Circuit and the Supreme Court have also endorsed “a two-step process” for ordering divestitures in antitrust cases in which the district court may “order[] divestiture first,” and then, only if affirmed, sort out certain “important details—like who would buy the divested entity.” *Steves & Sons, Inc. v. JELD-WEN, Inc.*, 988 F.3d 690, 722 (4th Cir. 2021); *accord Brown Shoe Co. v. United States*, 370 U.S. 294, 309–10 (1962) (divestiture order need not address “the precise details of the relief ordered”).

⁶ Google relies principally on *Ginsburg v. InBev NV/SA*, 623 F.3d 1229 (8th Cir. 2010), but that was a private action, and in such actions courts must “consider[] the balance of hardships between the plaintiff and defendant.” *Steves & Sons*, 988 F.3d at 705 (cleaned up). Not so here. “[I]n cases brought by the government, . . . hardships do not need to be balanced nor the public interest assessed in the same way . . .” *Steves & Sons, Inc. v. JELD-WEN, Inc.*, 345 F. Supp. 3d 614, 649–50 (E.D. Va. 2018); *see also* ECF No. 1435 at 15–16 (collecting cases). And even in a private action, the court should choose the remedy “that best promotes competition,” not “the remedy least burdensome to the defendant.” *Steves & Sons*, 988 F.3d at 720–21.

326. Thus, as Plaintiffs have previously explained, *see* ECF No. 1435 at 15–17, “the Government cannot be denied” a divestiture that is “a necessary element of effective relief” based on concerns of “economic hardship, however severe.” *du Pont*, 366 U.S. at 327.

II. Plaintiffs’ Proposed Remedies Would Restore Competition

Plaintiffs propose a “comprehensive” set of structural and behavioral remedies that “complement and reinforce each other” to satisfy the mandatory objectives of an antitrust decree and restore competition. *See New York v. Microsoft Corp.* (“*Microsoft II*”), 531 F. Supp. 2d 141, 170 (D.D.C. 2008); *see also* ECF No. 1663 (summarizing proposed remedies and explaining how they would restore competition); ECF No. 1482 (same). The evidence Plaintiffs will present at trial from customers, industry participants, expert witnesses, and Google’s own employees will confirm that Plaintiffs’ proposed remedies “fit the exigencies of [this] particular case,” *Ford*, 405 U.S. at 575 (cleaned up), by targeting the perverse incentives that are the root of the problem as well as the “chief weapons” and “instruments,” *Crescent Amusement*, 323 U.S. at 188, Google has used to act on those incentives to harm competition: (1) AdX, “the glue that sealed DFP inventory to AdWords demand,” Op. at 28 (cleaned up), (2) DFP’s Final Auction Logic, which Google has used repeatedly to devise “a fundamentally unfair auction process,” *id.* at 99, and (3) the exclusionary behavior of Google’s ad tech tools, including its bidding tools like AdWords, that would tend to recreate the buy-side-to-sell-side foreclosure that the Court found substantially harmed competition, *see, e.g., id.* at 28–29.

In tailoring remedies to the specific Google conduct, abilities, and incentives that underlay Google’s violations, Plaintiffs propose measures that are “a reasonable method of eliminating the consequences of the illegal conduct.” *Prof’l Eng’rs*, 435 U.S. at 698. It is appropriate that some of these measures are “strong,” *Aluminum Co.*, 91 F. Supp. at 343, given Google’s demonstrated proclivities to harm competition, its unusual degree of mutually self-

reinforcing power across the ad tech stack, and the profound and enduring harms that its conduct has inflicted on the relevant markets for more than a decade. *See supra* pp. 4–12.

The principle that antitrust remedies should “fit the wrong,” *Microsoft*, 253 F.3d at 107, is not a one-way ratchet toward weak and ineffective remedies, especially here where the anticompetitive conduct was calculated, pervasive, and ever-changing. When a court concludes that lesser remedies “will not be effective to redress a violation,” they are “authorized, indeed required, to decree relief effective to redress the violations, whatever the adverse effect of such a decree on private interests.” *du Pont*, 366 U.S. at 326–27. Thus, although “judicial humility” and “caution” certainly guide the Court’s discretion, *Alston*, 594 U.S. at 106–07, they are not, as Google suggests, an invitation to abdicate the Court’s “inescapable responsibility” to restore competition, *United Shoe*, 391 U.S. at 250.

Google raises four principal categories of arguments against Plaintiffs’ proposals:

(1) divesting AdX and open-sourcing DFP’s Final Auction Logic would be “unworkab[le],” Google Br. 13–15, would “accelerat[e] the downfall of open-web display advertising,” *id.* at 3–4, 16–18, and would harm both quality and innovation, *id.* at 18–20, (2) there is an insufficient causal connection between Google’s illegal conduct and its establishment of monopoly power to warrant divestiture, *id.* at 20–24, (3) Plaintiffs’ proposed remedies improperly prohibit Google from re-entering the relevant markets following divestiture, *id.* at 11–12, and (4) Plaintiffs’ behavioral remedies that prohibit Google using its bidding tools to foreclose competition would also restrict competition on the merits, *id.* at 11. All these arguments lack evidentiary support, and none is a valid reason to decline to adopt Plaintiffs’ proposed remedies.

A. Plaintiffs’ Proposed AdX Divestiture and Open-Sourcing of DFP’s Final Auction Logic Are Tailored, Feasible Remedies That Safeguard Against Harm

As discussed above, Plaintiffs’ proposals to divest AdX and open-source DFP’s Final Auction Logic are necessary elements of effective relief in this case. *See supra* pp. 9–12. Google’s arguments focus almost entirely on attacking these proposals, but the parade of horrors that Google speculates might occur if these remedies were implemented is not a reason to avoid them or to adopt other, behavioral-only remedies that would require the Court to be a “day-to-day enforcer” of a regulatory final judgment. *Alston*, 594 U.S. at 102. The evidence at trial will show that Plaintiffs’ proposed structural remedies are technically feasible; would protect open-web publishers from further Google harm, allowing them to invest more in the open web; and would, if anything, encourage greater quality and innovation.

1. Plaintiffs’ Proposed Structural Remedies Are Technically Feasible

The Court’s “duty” in a monopolization case is to order effective relief “so far as practicable.” *Gypsum*, 340 U.S. at 88. Thus, arguments “directed to the feasibility or practicality of the proposed remedy” are “entitled to consideration by a court exercising its equitable discretion.” *Wright v. Council of City of Emporia*, 407 U.S. 451, 467 (1972). However, the kind of feasibility that normally guides the Court’s equitable discretion is the “practical difficult[y] of enforcement of an injunction,” *Lord & Taylor, LLC v. White Flint, L.P.*, 780 F.3d 211, 217 (4th Cir. 2015), not hardships that a remedy may impose on a defendant.

Here, the “hardship” or “difficulty,” Google Br. 13, 15, that structural relief may impose on Google are not a valid basis to deny Plaintiffs structural remedies because such remedies are “a necessary element of effective relief.” *du Pont*, 366 U.S. at 327; *see also supra* pp. 9–12. And because Plaintiffs have “successfully borne the considerable burden of establishing a violation of [antitrust] law, all doubts as to the remedy are to be resolved in [their] favor.” *Id.* at 334. Even if

hardship on Google is a relevant consideration, Google “bear[s] the burden of proving *its own* hardships, as such facts [are] peculiarly in its knowledge.” *Steves & Sons*, 988 F.3d at 721.

The evidence at trial will show that Plaintiffs’ proposed structural remedies are “practicable,” *Gypsum*, 340 U.S. at 88, because they could be implemented using the same orderly and careful process that large technology companies like Google have used many times to migrate software from one company to another. Two highly qualified computer scientists—Prof. John Weissman and Dr. Goranka Bjedov—including one with years of experience working on complex software migration projects at large technology companies (Dr. Bjedov), will testify that the technological projects of separating AdX and the DFP Final Auction Logic from Google’s infrastructure and migrating it to another infrastructure is feasible, and each could be completed in about two years or less. Contrary to Google’s mischaracterizations of those experts’ opinions, *see* Google Br. 3, 14, their analysis is reliably grounded in computer science principles, the facts of this case, and relevant experience, and their conclusions are consistent with Google’s own internal technical analyses, *see* ECF No. 1665 at 5–6.

At bottom, Google’s argument is that it has made itself too technologically complex to break up, such that it should have immunity from structural remedies no matter how pervasive or egregious its antitrust violations are. That argument finds no support in the law. The Supreme Court has ordered divestiture (or even dissolution) in antitrust cases many times, including over objections like the ones Google raises here: that divestiture is “harsh,” “inequitable,” or would entail “hardship” or “punishment.” *See, e.g., Crescent Amusement*, 323 U.S. at 189; *du Pont*, 366 U.S. at 327–28; *Int’l Boxing*, 358 U.S. at 256. And, contrary to Google’s arguments, *Microsoft* did not rule out divestiture, let alone hold that divestiture is unavailable any time it would be “difficult[.]” Google Br. 13. Insofar as *Microsoft* raised feasibility concerns about structural

remedies, it was as to “dissolution of a unitary company,” *i.e.*, breaking up a singular company into multiple smaller companies, 253 F.3d at 106, which Plaintiffs do not seek here, and the court’s generalized concerns did not stop it from directing the trial court on remand to consider whether divestiture was appropriate on the specific facts of that case, *id.* at 105.

Moreover, in *Google Search*, on which Google heavily relies, the court’s discussion of the feasibility of a Chrome divestiture was dictum responding to the argument that such a divestiture would be “natural.” *See* 2025 WL 2523010, at *56. The court’s holding was essentially that a Chrome divestiture was not a necessary element of effective relief because (1) it was “a poor fit” for the facts, (2) plaintiffs “ha[d] not shown that their behavioral remedies will be ineffective without the immediate divestiture of Chrome,” and (3) the court could not “find that Google’s market dominance is sufficiently attributable to its illegal conduct to justify divestiture.” *Id.* at *55. None of those reasons for rejecting structural relief apply here. Moreover, the court’s concern about the feasibility of a Chrome divestiture was grounded in facts that do not exist here. Primarily, Google built Chrome “from the ground up,” *id.* at *56, whereas Google acquired AdX and DFP. Such growth by acquisition creates “preexisting internal lines of division along which [assets] may more easily be split than a company that has expanded from natural growth.” *Microsoft*, 253 F.3d at 106. Even if those lines have “fade[d]” to some degree, they still provide “a template for . . . division” here where they did not in *Google Search*. *Id.*

Google’s purported perplexity at the prospect of implementing structural remedies is also at odds with its corporate ethos “to tackle big problems.” Alphabet Inc. Form 10-K at 4 (Feb. 4, 2025). Consistent with that corporate philosophy, and as its own internal technical analyses reflect, when Google wants to divest technology because it benefits Google, Google routinely does so, undaunted by technological challenges. *See, e.g., id.* at 9 (Google’s “culture” is “to

address complex challenges in technology”). Indeed, “divestitures are important elements of [Google’s] overall corporate strategy.” *Id.* at 24. Google’s apparent ability “to tackle big problems” and pursue divestitures as a “corporate strategy” cannot suddenly evaporate when it comes time to take the actions necessary to remedy its illegal conduct.

2. Plaintiffs’ Proposed Remedies Would Help Preserve the Open Web

Plaintiffs’ proposed remedies, by eliminating Google’s ability and incentive to harm competition in the relevant markets as it has for more than a decade, will improve customer and consumer welfare, including that of open-web publishers that rely on ad tech tools to monetize their content. That in turn will help promote a vibrant open web.

Google observes an “already-precarious open-web display advertising” sector, Google Br. 18, yet somehow misses the significant role *Google* has played in damaging the open web. As the Court found, Google’s illegal conduct caused substantial harm to open-web publishers, overcharging them, depriving them of revenue they otherwise would have been able to invest in valuable content, and coercing them into using Google’s products. *See, e.g., Op.* at 115 (“substantially harmed Google’s publisher customers”); *id.* at 31 (Google’s conduct “benefitted Google . . . at its publisher customers’ expense”); *id.* at 98 (Google’s conduct “not in its publisher customers’ best interests”). It is therefore ironic for Google to suggest that Google and Google alone can save the open web, such that Google’s absence from the relevant markets alone would hasten its “downfall.” Google Br. 3. Hard as it may be for Google to accept, other ad tech providers (including new entrants) also can provide significant value to open-web publishers. In a more competitive market, those firms, unlike Google, will have incentives to lower prices, improve quality, and innovate to win publisher business on the merits. In short, open-web display advertising can continue to grow without Google.

Moreover, the evidence at trial will show that open-web display advertising continues to grow, even if its share of the overall digital advertising landscape has been eroded to some degree by the introduction of newer forms of advertising. Open-web display is still a large category of digital advertising, and it still accounts for most of the advertising transacted on AdX and DFP. Thus, Google's reports of the open web's demise are greatly exaggerated. Although Google waves its hands about "transformations" to an undefined "display ad industry," *see id.* at 16, it does not point to a single development that it claims would cure (or even mitigate) the harms that Google has caused the open-web display advertising industry. Accordingly, these "transformations" are nothing more than red herrings, designed to distract from the very real harms, caused by Google, that must be remedied here.

3. Plaintiffs' Proposed Remedies Preserve Quality and Innovation

The process of divesting AdX and open-sourcing DFP's Final Auction Logic would not harm their quality or reduce the incentives of market participants to continue to innovate, contrary to Google's arguments. *See* Google Br. 18–20. The evidence at trial will show that both AdX and DFP (or just its Final Auction Logic) can be separated and migrated while retaining substantially equivalent functionalities. If anything, the evidence at trial will show that Plaintiffs' proposed structural remedies, especially the open-sourcing of DFP's Final Auction Logic, would *increase* incentives for innovation by lowering barriers to entry and expansion.

Google's claims that a divested version of AdX or DFP would be "inferior" are unsupported. As Google did unsuccessfully in the liability phase, it continues to make pretextual, evidence-free claims that if anything is done by a firm other than Google, it is inherently done worse. That aggressive, Google-centric claim has never been true. *See, e.g.,* Op. at 107 (finding Google's "proffered spam, fraud, latency, and other quality justifications" to be "pretextual"). Thus, when Google characterizes the testimony of Plaintiffs' experts regarding whether divested

AdX or DFP would “be up to Google’s current standards,” Google Br. 19, it refers to testimony about whether the new owner of AdX or DFP would make the same product-design choices as Google. That is not and should not be the bar for assessing the appropriateness of structural relief because the Sherman Act “reflects a legislative judgment” preferring choices that are the result of competition and “the free opportunity to select among alternative offers,” not merely the dictates of monopolists that are shielded from these market forces. *Prof’l Eng’rs*, 435 U.S. at 695.

B. There Is a Sufficient Causal Connection Between Google’s Illegal Conduct and Google’s Monopoly Power to Warrant Structural Relief

Neither the Supreme Court nor the Fourth Circuit has addressed what “causation” standard, if any, applies to a monopolization remedy, but some courts have held there must be “a significant causal connection between the [defendant’s] conduct and creation or maintenance of the [defendant’s] market power.” *Microsoft*, 253 F.3d at 107; *see also In re Google Play Store Antitrust Litig.* (“*Epic*”), 147 F.4th 917, 949 (9th Cir. 2025); *Google Search*, 2025 WL 2523010, at *31–35. In this regard, a remedy need only be “a reasonable method of redressing problems with a significant causal connection to [the challenged] conduct.” *Epic*, 147 F.4th at 949; *see also Prof’l Eng’rs*, 435 U.S. at 698 (relief must “represent[] a reasonable method of eliminating the consequences of the illegal conduct.”). The Court need not conclude that Google would have lost or never acquired its monopoly power “but for” its illegal conduct; it need only have a sufficient “level of confidence that the challenged conduct significantly contributed to” Google’s acquisition or maintenance of monopoly power. *Google Search*, 2025 WL 2523010, at *35.

Under this standard (if it applies), the causal connection between Google’s illegal conduct and its monopoly power is more than sufficient to justify Plaintiffs’ proposed remedies here. The Court clearly held that Google “willfully engaged in a series of anticompetitive acts to acquire and maintain monopoly power in the publisher ad server and ad exchange markets for open-web

display advertising.” Op. at 114; *accord id.* at 1. The Court also specifically held that Google’s unlawful AdX-DFP tie “enabled the company to establish and protect its monopoly power in these two markets.” *Id.* at 114. In a situation like this, when “monopoly power was consciously acquired,” the Court “ha[s] no reason to reach” defendant’s arguments “that their dominance is due to skill, acumen, and the like.” *Grinnell*, 384 U.S. at 576 n.7. Because this causal connection is sufficient to warrant structural remedies, it is also sufficient to warrant behavioral remedies. *See Microsoft*, 253 F.3d at 106 (structural relief “requires a clearer indication” of causation).

Supreme Court precedent also makes clear that sufficient causation exists to order structural remedies when the monopolist has a track record of using the to-be-divested asset(s) to violate the Sherman Act or that the monopolist is likely to do so in the future. *See, e.g., Int’l Boxing*, 358 U.S. at 256; *Paramount Pictures*, 334 U.S. at 152–53; *Crescent Amusement*, 323 U.S. at 189–90. If an asset “may have been utilized” to “eliminate or suppress competition” or otherwise to “further[]” an illegal course of conduct, the divestiture of that asset is “justified.” *Paramount Pictures*, 334 U.S. at 152; *see also Crescent Amusement*, 323 U.S. at 189-90 (divestiture warranted where “[c]ommon control was one of the instruments” of illegal conduct). That nexus between illegal conduct and divested assets likewise exists here in spades because Google repeatedly used both DFP and AdX as the “chief weapons” to effectuate its anticompetitive campaign. *Crescent Amusement*, 323 U.S. at 188; *see supra* pp. 4–5.

Google’s contrary arguments lack factual and legal support. Google first tries to contest causation by inventing findings that are the opposite of those the Court made, claiming without any support that “Google’s acquisition of power in the relevant markets is attributed to reasons unrelated to the conduct this Court found to be anticompetitive.” Google Br. 22. Google also proposes an indefensibly stringent causation standard that has no support in precedent or

common sense. Google claims that if any “other factor[.]” “contribute[s]” in any way to a firm’s success, divestiture is prohibited. *Id.* That would go well beyond a but-for causation standard, which *Google Search* rejected as too “demanding,” 2025 WL 2523010, at *35, and would instead require *exclusive* causation. Google’s only citation in support of this claim is *Google Search*, but that court expressly rejected the standard Google describes. *See id.* at *37 (“A monopolist cannot avoid stiffer remedies simply because it can point to lawful reasons for its market success.”). As it did in *Google Search*, Google once again “contorts [precedent] to tease out its desired standard” and “stretches [case law] beyond recognition.” *Id.* at *33–34.

C. A Temporary Prohibition on Re-Entry into the Relevant Markets Following Divestiture Is Necessary and Appropriate to Restore Competition

Plaintiffs’ proposal to prohibit temporarily Google’s re-entry into the relevant markets following a divestiture is needed to give practical effect to any divestiture order in this case. *See* Pls.’ PFJ §§ XI(A), XI(D). Because a divestiture of AdX (or DFP, if necessary) would essentially involve creating a copy of AdX (or DFP) and migrating it to a buyer’s infrastructure, Plaintiffs propose that Google be able to retain its own copy following divestiture, requiring it only to “disable on its own servers AdX’s technological ability to transact Open-Web Display Ad Impressions.” *Id.* § VI(Q); *see also id.* VIII(Q) (similar provision for DFP Remainder). This would leave Google with all the technology it would need to continue operating an ad exchange (or publisher ad server) in other markets following divestiture. However, it would also leave Google able to re-enter immediately the relevant markets following divestiture, which would defeat the primary purpose of divestiture in this case, which is to structurally eliminate Google’s ability and incentive to harm competition in open-web display markets. *See supra* pp. 9–12. Immediate re-entry would resurrect those very abilities and incentives.

Google takes issue with this proposal, Google Br. 11–12, but its objections are misguided. As Google concedes, *id.* at 12 n.2, Supreme Court precedent supports a temporary prohibition on a firm re-entering a market where competition needs to be restored. In *Ford*, the Supreme Court upheld a remedy that prohibited the defendant from reentering the relevant market for ten years as a means of restoring competition. *See* 405 U.S. at 575–78. The defendant there made the same argument Google makes here: the re-entry prohibition “will lessen competition because it will remove a potential competitor from the marketplace.” *Id.* at 575 n.10; *see also* Google Br. 12 (“[T]he purpose of an antitrust remedy is to encourage competition, not to take a competitor off the field.”); *id.* at 9 (arguing “[d]ivestiture in the form of completely removing a competitor from the market is unknown to any case”). The Supreme Court rejected that argument, holding that a temporary re-entry prohibition (like the one Plaintiffs propose) was a reasonable means of restoring competition. *See Ford*, 405 U.S. at 575 n.10. Google’s citation to the remand decision in *Microsoft II*, Google Br. 11–12, does not move the needle because that case merely concluded that two *other* Supreme Court cases did not “indicate” that a re-entry prohibition was needed. *See Microsoft II*, 224 F. Supp. 2d at 108 (discussing only *Paramount Pictures* and *International Salt*).

D. Plaintiffs’ Proposed Behavioral Restrictions Target Anticompetitive Conduct and Preserve Procompetitive Conduct

Plaintiffs propose a series of behavioral restrictions, some of which relate to the conduct of AdWords and DV360, that are tailored to prevent future monopolization by Google through the same economic mechanisms it has used in the past. *See* Pls.’ PFJ § X. These restrictions primarily target conduct that would recreate the same kind of foreclosure Google perpetrated with the AdX-DFP tie, *i.e.*, Google using the power of its buy-side tools (AdWords and DV360) to insulate its sell-side tools (AdX and DFP) from competition. Among other things, the proposed restrictions accomplish this end by requiring Google’s ad tech tools to behave “without

regard to whether” the ad tech tool(s) they choose to deal with are “owned by or affiliated with Google” or whether a publisher or advertiser uses Google tools. *See id.* §§ X(B)–(C), X(E)–(H).

Google claims that these restrictions would “constrain” competition on the merits with other buying tools, Google Br. 11; *id.* at 3 (“hobbling the ability of Google’s buying tools . . . to innovate”), but that is incorrect. These restrictions would permit Google’s buying tools to make decisions about how and with whom they deal on the basis of quality, price, value, security, and other metrics of competition on the merits. What they prohibit is re-creation of the preferential, Google-only buying relationships that have harmed Google’s advertiser customers and foreclosed competition in the relevant sell-side markets. *See supra* pp. 4–5.

III. Google’s Proposed Remedies Fail to Restore Competition

Google’s submission explains the objectives Google thinks an antitrust remedy should *not* pursue, but it fails to address the objectives that Supreme Court precedent holds an antitrust remedy “must” satisfy: (1) “unfetter a market from anticompetitive conduct,” (2) “terminate the illegal monopoly,” (3) “deny to the defendant the fruits of its statutory violation,” and (4) “ensure that there remain no practices likely to result in monopolization in the future.” *Microsoft*, 253 F.3d at 103 (quoting *Ford*, 405 U.S. at 577 and *United Shoe*, 391 U.S. at 250).

Although Google adopts portions of some of Plaintiffs’ proposed remedies in a belated effort to shore up its own proposal, Google’s remedies do not satisfy the mandatory objectives of an antitrust decree and thus would not restore competition for at least five reasons. *First*, Google’s proposed remedies do not even clear the first and lowest bar—stopping the conduct that gave rise to the violation. Although the campaign the Court found illegal was fundamentally a buy-side-to-sell-side leveraging scheme, Google’s proposals fail to remedy Google’s ongoing ability and incentive to use its buy-side power to harm competition in the two sell-side markets that Google monopolized. *Second*, Google’s proposal fails to prevent other “practices likely to

result in monopolization in the future.” *United Shoe*, 391 U.S. at 250. *Third*, Google’s proposals are unlikely to cure the persistent harms Google’s conduct caused in the relevant markets, including Google scale and data advantages that are fruits of Google’s illegality. *Fourth*, Google’s proposed remedies would not terminate Google’s ill-gotten monopolies. *Fifth*, Google’s proposed remedies would not be in place long enough to restore competition.

Beyond these five specific areas of deficiency, it is no coincidence that only witnesses paid by Google are slated to testify at trial that Google’s remedy proposals are sufficient. Not a single Google customer or non-Google industry participant is slated to testify that Google’s remedy proposals are enough to restore competition in the markets where Google has “destroyed all competition” over the past 15 years. *Op.* at 98.

A. Google’s Proposed Remedies Fail to Address Google’s Ongoing Ability and Incentive to Leverage AdWords to Harm Competition

1. AdWords Has Been a Vital Part of Google’s Illegal Campaign

As discussed above, a foundational aspect of Google’s illegal exclusionary campaign was its use of Google’s “significant Search-derived power on the buy-side,” *Op.* at 96, to harm competition in sell-side markets for ad exchanges and publisher ad servers. *See supra* pp. 4–8. Thus, the Court’s opinion concluded that AdWords was a vital part of Google’s anticompetitive conduct because it was the primary source of economic leverage that Google used to “compel[] publishers to use AdX and DFP.” *Op.* at 29; *see also id.* at 96 (“AdWords demand compelled publishers to work with Google’s sell-side products” (cleaned up)).

The crucial role that AdWords played in Google’s unlawful scheme is most clear from the Court’s discussion of the anticompetitive effects of the AdX-DFP tie, where the Court concluded that “[t]he unique value of real-time access to AdWords” is what “forced Google’s publisher customers” to use DFP, a publisher ad server “they either did not want at all, or might have

preferred to purchase elsewhere on different terms.” *Id.* at 95 (cleaned up); *see also id.* (AdX-DFP tie conditioned “access to . . . real-time bidding by AdWords advertisers”); *id.* at 93 (tying DFP to AdX was “coercive” because it “made purchasing DFP . . . the only viable economic option for publishers who wanted to gain effective real-time access to AdWords”). The Court reaffirmed these findings at the outset of this remedies phase, noting that “the whole reason” that Google’s anticompetitive campaign “works so well” is “the golden goose” of AdWords and “the way in which [publishers] could get it.” Hr’g Tr. at 9:14–18 (May 2, 2025). Google has also used AdWords to harm its “advertiser customers” by depriving them of the “benefit [of] AdWords bidding for open-web display ad inventory on non-Google exchanges,” *id.* at 97; *see also id.* at 104 (“Google sacrificed short-run benefits” by limiting AdWords bidding, “despite . . . the benefits that doing so would have for its advertiser customers”).

2. Google’s Proposed Remedies Preserve Google’s Ability and Incentive to Continue Using AdWords to Harm Competition

Given the important role AdWords has played in Google’s illegal course of conduct, a glaring flaw in Google’s remedy proposal is that it completely ignores AdWords. Indeed, Google’s proposed order goes so far as to expressly exclude AdWords (and DV360) from its ambit. Google PFJ ¶ II(2) (excluding “Google Ads” and “DV360” from its scope). Thus, Google’s proposal does not, as it must, “end [the] specific illegal practices” at issue. *Int’l Salt*, 332 U.S. at 401; *see also Crescent Amusement*, 323 U.S. at 188 (“Civil suits under the Sherman Act would indeed be idle gestures if the injunction did not run against the continuance or resumption of the unlawful practice.”).

Google tries to defend this omission by making the remarkable claim that AdWords “is in no way connected to any anticompetitive findings by the Court.”⁷ Google Br. 23. As the foregoing discussion demonstrates, that assertion is baseless. Google appears to reach this misguided conclusion by focusing narrowly on the Court’s rejection of Plaintiffs’ advertiser ad network market, *see id.* at 11, but that perspective misreads the Court’s opinion and misapplies the law. *See, e.g., Google Search*, 2025 WL 2523010 at *49 (rejecting argument that products not “part of the relevant markets . . . cannot be included in the remedial decree” (cleaned up)). The Court declining to define an advertiser ad network market does not negate the Court’s findings that AdWords was an important part of the conduct that harmed competition in markets the Court *did* define. As the Court made plain, the scope of Google’s liability (and thus the scope of any remedy inquiry) follows from whether and how “the company’s conduct, *when considered as a whole*, harmed competition and therefore harmed consumers.” Op. at 87 (emphasis added); *see id.* at 86 (a “holistic assessment” of conduct is “the touchstone” of determining liability). Google’s argument thus commits the error the Supreme Court has warned against for decades: “tightly compartmentalizing the various factual components” of an antitrust plaintiff’s proof “and wiping the slate clean after scrutiny of each.” *Cont’l Ore Co. v. Union Carbide & Carbon Corp.*, 370 U.S. 690, 698–99 (1962) (cited in Op. at 86).

⁷ Google similarly contends that the two-sided nature of the ad exchange market “is fatal to establish causation” because “Google’s power on an entire half of the ad exchange market . . . is in no way connected to any anticompetitive findings.” Google Br. 23. That argument is wrong on the facts for the reasons discussed above. *See supra* pp. 4–5, 33–34. It also misapplies *Ohio v. Am. Express Co.*, 585 U.S. 529 (2018), which did not address remedies or causation and held that a two-sided transaction platform is “only one market,” *id.* at 546. Because this Court held that Google illegally established and maintained monopoly power in that “one market” (the ad exchange market) Google cannot segregate a “half” of that market to get around causation.

What Google’s self-serving reading of the Court’s opinion misses is that Google’s economic incentives to use AdWords’ power to harm competition in the relevant markets are clear and ongoing: it allows Google to continue to “destroy[]” its competition in those markets, *id.* at 98, enables Google to retain its ill-gotten monopoly power in those markets, and “help[s] Google maintain the power to keep charging AdX publishers a 20% take rate,” *id.* at 81. These incentives are important to recognize in formulating a remedy because antitrust law generally presumes that firms act in accordance with their “rational economic motive[s].” *Matsushita Elec. Indus. Co. v. Zenith Radio Corp.*, 475 U.S. 574, 596 (1986). Expert testimony at trial will confirm that this economic presumption holds here. There is no evidence (nor does Google contend) that Google’s (strong) economic incentives to harm competition will dissipate on their own. Thus, the remedy here must address the ongoing threat posed by Google’s ability and incentive to use AdWords to harm competition. Otherwise, there is little prospect of “terminat[ing]” Google’s “illegal monopol[ies],” “deny[ing] to [Google] the fruits of its statutory violation,” or “ensur[ing] that there remain no practices likely to result in monopolization in the future.” *Microsoft*, 253 F.3d at 103.

The failure of Google’s proposed remedies to prevent future monopolization using AdWords (or DV360) to harm competition in the relevant markets is not hypothetical. Under Google’s proposal, there are at least two specific ways in which Google could immediately recreate such anticompetitive conduct in other forms. *First*, Google could limit AdWords (or DV360) to bidding directly (and exclusively) into DFP, much as it does today via AdX. This would allow Google to continue to monopolize the open-web display publisher ad server market using AdWords demand even if it did not own or even use an ad exchange. Evidence at trial will show that Google has already rolled out a direct-bidding product that would allow it to

implement this alternative avenue to monopolization. *Second*, Google could require AdWords (or DV360) to charge prohibitively high take rates for non-DFP ad inventory, thereby continuing to coerce publishers to use DFP as their publisher ad server if they want a “viable economic option . . . to gain effective real-time access to AdWords” demand. Op. at 93.

B. Google’s Proposed Remedies Fail to Prevent Other, Similar Forms of Monopolization in the Future

Google’s narrow behavioral injunctions also fall short because they would permit a variety of other forms of monopolization going forward that “are of the same type or class” as Google’s prior illegal conduct “or whose commission in the future unless enjoined, may fairly be anticipated from [Google’s] conduct in the past.” *Zenith Radio Corp. v. Hazeltine Research, Inc.*, 395 U.S. 100, 132 (1969). These “untraveled roads” to monopolization cannot be “left open” to Google if competition is to be restored. *Int’l Salt*, 332 U.S. at 400.

Although the exact form of Google’s future monopolization is hard to predict, two primary categories, in addition to those discussed above related to AdWords, remain obviously available under Google’s proposal.

First, although Google emphasizes its proposals to integrate AdX with Prebid and make real-time bids from AdX available to rival publisher ad servers, Google Br. 2, 5–7, 9, those proposals place very few limits on AdX’s ability to degrade the value of bids it passes to Prebid or rival publisher ad servers. That degradation could make it economically non-viable for publishers to access AdX bids other than through DFP, thereby recreating the same coercive effects as the AdX-DFP tie. Namely, Google’s proposal specifies that Google “shall not charge . . . a greater AdX revenue share,” Google PFJ ¶ III(1)(c), but Google could still cause AdX to manipulate bids in other discriminatory ways that foreclose DFP’s rivals, such as

imposing higher latency, degrading matching or targeting information,⁸ or using discriminatory filters or algorithms in sending bid requests to buying tools.

Second, Google’s proposal to integrate DFP with Prebid and to make header-bidding traffic available to DFP customers, *see* Google PFJ ¶¶ III(3)(a)–(b), similarly permits DFP to discriminate against header bidding and rival ad exchanges in ways that would continue to foreclose rivals and harm competition. For example, although Google proposes to “deprecate” and/or “not reimplement” First Look, Last Look, or UPR, *id.* ¶¶ III(3)–(4), Google could still manipulate DFP’s Final Auction Logic in new ways that similarly grant artificial advantages to AdX over header bidding and rival exchanges, such as by imposing higher reserve prices or lower latency time-outs when requesting bids from header bidding or rival exchanges. DFP could also restrict data signals to tools other than AdX, charge higher ad serving fees for inventory sold through non-Google pathways (including Header Bidding Trafficking), and otherwise use its “dominant grip on the publisher ad server market,” *Op.* at 46, to handicap AdX’s rivals.

Additionally, because many of these new forms of monopolization, like much of Google’s past and present forms of monopolization, would take place inside Google’s black-box systems, *see supra* pp. 11–12, they are likely to be at least as “subtle and informed” and “difficult to prove” as Google’s past illegal conduct. *Int’l Salt*, 332 U.S. at 400. And because these alternative means of monopolization available to Google are both myriad and likely to be difficult to detect quickly and completely, behavioral remedies are a poor fit to address them. By contrast, structural elimination of Google’s ability and incentive to engage in this behavior, as

⁸ Google’s proposal only requires the AdX-Prebid integration to “collect[] relevant signals,” Google PFJ ¶ VI(E), which leaves ample room for Google to throttle the kinds of data signals sent to Prebid or rival publisher ad servers. Similar leeway exists for the DFP-Prebid integration Google proposes. *See id.* ¶ VI(I) (“all relevant signals”).

Plaintiffs propose, would treat the disease rather than just its symptoms and thereby “reach the root of the evil.” *Grinnell*, 384 U.S. at 578.

C. Google’s Proposed Remedies Fail to Address the Persistent Harms to Competition That Its Conduct Caused

Google’s proposed remedies also fail to “eliminat[e] the consequences of the illegal conduct” because they do not adequately address harms caused by Google’s conduct that are likely to persist after the illegal conduct stops. *Prof’l Eng’rs*, 435 U.S. at 698; *see also Paramount Pictures*, 334 U.S. at 171 (antitrust remedy’s “function includes undoing what the [violation] achieved”); *United Shoe I*, 110 F. Supp. at 350 (“[T]he effect of the [antitrust] decree is to break down barriers erected by a monopolizer . . .”). These consequences include primarily scale- and data-related disadvantages that Google imposed on its rivals, barriers to entry and expansion that Google’s conduct exacerbated, and the forced exit (or exclusion) of Google’s rivals from the publisher ad server market. *See supra* pp. 6–8.

As discussed, *see id.*, these harms are unlikely to dissipate on their own. This is especially so because, as the evidence at trial showed, in markets like the ones at issue where scale is crucial and barriers to entry are high, Google’s existing, ill-gotten advantages generate a flywheel effect, whereby scale begets more scale, further heightening barriers to entry and expansion, and so on. Thus, in formulating a remedy, the Court “must account for the particular characteristics of digital markets, which can allow monopolists that achieved or maintained dominance through exclusionary conduct to perpetuate entry barriers and maintain monopoly power long after that conduct has stopped.” *Epic*, 147 F.4th at 947. Because of these “characteristics of digital markets,” *id.*, Google’s conduct did not merely shift market share; it reshaped the very landscape of the market, giving itself a downhill grade and constructing levees for rivals to overcome. This is a key reason why *Google Search* imposed data-sharing

requirements on Google in a market also marked by lopsided scale and data gaps. *See* 2025 WL 2523010, at *63 (requiring data-sharing to “narrow the scale gap”).

Google’s proposed remedies fail to remediate these persistent harms, and it is not clear that Google even thinks alleviating these harms is an appropriate goal of a remedy. Google’s submission only briefly alludes to scale disadvantages, but then waves them away, claiming that Prebid integrations will “creat[e] . . . new channels for rivals to compete and gain scale.” Google Br. 9. But, as discussed above, Google’s proposed integrations would merely create new avenues for Google to deprive rivals of scale. *See supra* pp. 37–38. Google does not acknowledge data disadvantages, barriers to entry and expansion, or the lasting effects of exit as harms that need to be remedied, let alone explain how its proposed remedies would address them. And as testimony at trial will show, it is unrealistic to expect that more than a decade of ill-gotten scale advantages will dissipate through narrow behavioral remedies alone.

Moreover, Google’s proposals are unlikely to lower Google’s supracompetitive AdX take rates, as Google claims. *See* Google Br. 7. Under Google’s proposal, it would continue to have the ability and incentive to charge supracompetitive prices because of its ongoing ability to use AdWords exclusivity to “maintain the power to keep charging AdX publishers a 20% take rate.” Op. at 81. Google claims, contrary to the Court’s findings, that “eliminating UPR . . . would reduce the AdX take rate from 20% to approximately 16%,” citing testimony from Prof. Simcoe, Google Br. 7, but that claim mischaracterizes Prof. Simcoe’s opinions. Prof. Simcoe testified that he estimated “the difference between the price that AdX charges in the real world and the price that it would charge in a competitive market,” using multiple methodologies. Trial Tr. at 6:20–7:7 (9/18 PM). One of those methodologies, an “event study,” conservatively estimated a take

rate of 16.2% in a competitive market.⁹ *See id.* at 32:16–20. As Google’s cross-examination made clear, Prof. Simcoe’s estimates “did not quantify the effects of each separate piece of anticompetitive conduct.” *Id.* at 15:6–10 (9/19 AM).

D. Google’s Proposed Remedies Would Not Deny Google the Fruits of Its Violations, Including Its Ill-Gotten Monopolies

Google’s proposed remedies would neither “terminate the illegal monopoly” nor “deny to [Google] the fruits of its statutory violation,” *Microsoft*, 253 F.3d at 103, which are two objectives that overlap in this case because Google’s monopolies are among the “fruits” of its illegality. *See Op.* at 1, 114. In addition to Google’s monopolies, the “fruits” of its violations also include ill-gotten profits and scale. *See ECF No. 1482* at 3. Google does not propose to give up any of these fruits, and it claims, contrary to the Court’s findings, that Google secured its ad tech monopolies fair and square. *Compare Google Br. 22* (“Google’s acquisition of power in the relevant markets is attributed to reasons unrelated to the conduct this Court found to be anticompetitive.”), *with Op.* at 114 (“Google has willfully engaged in a series of anticompetitive acts to acquire and maintain monopoly power”); *see also supra* pp. 28–30 (addressing Google’s causation arguments). Thus, Google does not meaningfully engage with either of these mandatory objectives of an antitrust remedy. It seeks instead to “preserve . . . intact” the ad tech “empire[]” that it “unlawfully built.” *Schine Chain*, 334 U.S. at 128.

Google misplaces reliance on *Microsoft* and *Google Search* to try to avoid structural remedies as a means of denying Google the fruits of its violations here. As Google’s brief acknowledges, the “fruits of a violation must be identified,” *Google Br. 8*, and they will depend upon the nature of the violation. The violations in both *Microsoft* and *Google Search* involved

⁹ Prof. Simcoe’s event study estimated “how much would you need to lower your take rate to win as many impressions as Google won by imposing the UPR rules within AdX,” *Trial Tr.* at 23:14–16 (9/18 PM), not how much take rates would decrease solely because of eliminating UPR.

only monopoly maintenance, and both cases, unlike this case, did not involve a finding that the defendant had established its monopoly illegally. *See Microsoft*, 253 F.3d at 45–46; *Google Search Liability*, 747 F. Supp. 3d at 32. Therefore, here, unlike *Microsoft* and *Google Search*, the initial existence of monopoly power is one of the fruits of the violation.

E. Google’s Proposed Remedies Would Not Be in Place Long Enough to Restore Competition

In addition to their many other flaws, Google’s proposed remedies would also fail to restore competition because they would not be in place long enough to do so. Google proposes to wait one year after final judgment to implement its principal remedies, *see* Google PFJ ¶¶ III(1), III(3)(b), V(1), but it only proposes to have those remedies monitored for three years after final judgment, *id.* ¶ V(2), leaving only two years for the remedies to be both in place and monitored for compliance. Google also proposes to grant Plaintiffs no compliance-inspection authority, such that after a monitor is no longer “oversee[ing] compliance,” Google Br. 6, Google would quickly be able to return to its old ways.¹⁰

Two years is not nearly enough time for competition in the relevant markets to be restored, especially if Google’s toothless remedies are implemented. To “pry open to competition” the markets at issue, firms other than Google must have a chance to gain incentives to invest in entry, expansion, and innovation. *Ford*, 405 U.S. at 577; *see also id.* at 578 (“the forces of competition must be nurtured to correct for” defendant’s illegal conduct). And competition requires time to take hold—as the liability trial record showed, entry, expansion and

¹⁰ Google also proposes to grant itself an unusual degree of involvement in its own monitoring. It proposes that it must agree to the appointment of its own monitor, Google PFJ ¶ IV(B)(1), and to have the monitor report *to Google* the steps it is taking to determine Google’s compliance, *id.* ¶ IV(B)(4). Google likewise proposes to grant itself “a reasonable period” to respond to potential violations “before any party discloses the matter to the Court or takes other enforcement action.” *Id.* ¶ IV(B)(5).

development of new products take time, customers need time to evaluate and switch to new alternatives, and new rivals need time to gain market adoption. *See, e.g.*, Trial Tr. at 143:19–145:1 (9/9 AM) (Casale (Index Exchange)) (explaining the “significant network effects and costs” “to attract both demand and supply” that required “years and years and years and years” to establish); Trial Tr. at 55:25–56:8 (9/17 PM) (Cadogan (OpenX)) (similar); Des. Tr. 113:12–114:17, 121:1–16 (Helfand (Disney)) (describing substantial time and investment needed to build and maintain a publisher ad server); ECF No. 1380 (Pls.’ PFOF) ¶¶ 404–405 (describing “significant time and resources” and “substantial investments” required to enter the publisher ad server market). However, if remedies are only in place and monitored for two years, with a rapid return to the status quo thereafter, firms will have much less incentive to make these investments.

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Respectfully submitted,

ERIK S. SIEBERT
United States Attorney

/s/ Gerard Mene
GERARD MENE
Assistant U.S. Attorney
2100 Jamieson Avenue
Alexandria, VA 22314
Telephone: (703) 299-3777
Facsimile: (703) 299-3983
Email: Gerard.Mene@usdoj.gov

/s/ Julia Tarver Wood
JULIA TARVER WOOD
DAVID A. GEIGER
MATTHEW R. HUPPERT
DAVID M. TESLICKO
MICHAEL E. WOLIN

United States Department of Justice
Antitrust Division
450 Fifth Street NW, Suite 7100
Washington, DC 20530
Telephone: (202) 307-0077
Fax: (202) 616-8544
Email: Julia.Tarver.Wood@usdoj.gov

Attorneys for the United States

JASON S. MIYARES
Attorney General of Virginia

/s/ Tyler T. Henry
TYLER T. HENRY
Assistant Attorney General

Office of the Attorney General of Virginia
202 North Ninth Street
Richmond, VA 23219
Telephone: (804) 692-0485
Facsimile: (804) 786-0122
Email: thenry@oag.state.va.us

Attorneys for the Commonwealth of
Virginia and local counsel for the
States of Arizona, California,
Colorado, Connecticut, Illinois,
Michigan, Minnesota, Nebraska, New
Hampshire, New Jersey, New York,
North Carolina, Rhode Island,
Tennessee, Washington, and West
Virginia